

Before the  
**Federal Communications Commission**  
Washington, DC 20554

In the Matter of

Intelsat License LLC, as debtor in  
possession

Application for Authority to Launch  
and Operate Galaxy 32, a Replacement  
Satellite with New Frequencies, at  
91.0° W.L.

File No. SAT-RPL-\_\_\_\_\_

**APPLICATION FOR AUTHORITY TO LAUNCH AND  
OPERATE GALAXY 32, A REPLACEMENT SATELLITE  
WITH NEW FREQUENCIES, AT 91.0° W.L.**

Intelsat License LLC, as debtor in possession (“Intelsat”), pursuant to Section 25.114 of the Federal Communications Commission’s (“FCC” or “Commission”) rules,<sup>1</sup> hereby applies to launch and operate a C/Ku-band replacement satellite with new frequencies, to be known as Galaxy 32, at the 91.0° W.L. orbital location.<sup>2</sup> Galaxy 32 is scheduled for launch in mid-2022

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<sup>1</sup> 47 C.F.R. § 25.114.

<sup>2</sup> The Commission’s rules permit replacement satellite applications in the 3700-4200 MHz band and these applications are not subject to the FCC’s 2018 filing freeze on new fixed satellite service (“FSS”) space station applications. *See* 47 C.F.R. § 2.106 n. NG182 (“In the band 3700-4200 MHz...[a]pplications for extension, cancellation, replacement, or modification of existing space station authorizations in the band will continue to be accepted and processed normally.”); *International Bureau Announces Temporary Filing Freeze on New Fixed-Satellite Service Space Station Applications in the 3.7-4.2 GHz Band*, Public Notice, DA 18-640, 33 FCC Rcd 6119 (2018) (“The freeze does not apply to applications for modification of existing authorizations, relocations of existing space stations pursuant to the Commission’s fleet management policy, or to applications for replacement space stations.”); *see also Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, FCC 20-22, 35 FCC Rcd 2343, ¶ 115 n. 327 (2020) (“*C-band Order*”).

and, after traffic transition, will replace Galaxy 17 (S2715), which is currently operating at 91.0° W.L.<sup>3</sup> Galaxy 32 will be collocated with the Intelsat 40e satellite (S3066), a new Ku/Ka-band satellite that is expected to launch and begin providing service from the 91.0° W.L. orbital location in Q3 2022.<sup>4</sup> Galaxy 32 will operate on a non-common carrier basis.<sup>5</sup>

As demonstrated below, Intelsat is legally and technically qualified to launch and operate its proposed replacement satellite with new frequencies. Moreover, grant of this application will serve the public interest by ensuring continuity of service at the 91.0° W.L. orbital location to C-band customers during and after the clearing of the lower 300 MHz for terrestrial mobile operations pursuant to the *C-band Order* and by adding additional Ku-band frequencies at the location that are complementary to Intelsat 40e. In accordance with the Commission's requirements,<sup>6</sup> this application has been filed electronically as an attachment to FCC Form 312 and Schedule S.

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<sup>3</sup> See *PanAmSat Licensee Corp., Amendment – Application for Authority to Launch and Operate Galaxy 17 Satellite*, Stamp Grant, File No. SAT-AMD-20070123-00013 (Apr. 24, 2007) (“*Galaxy 17 Authorization*”). During traffic transition, Galaxy 32, Galaxy 17 and, to the extent necessary, Intelsat 40e will occupy the same station-keeping box. Following traffic transition, and subject to receipt of FCC approval, Galaxy 17 will be redeployed to a different location.

<sup>4</sup> See *Application of Intelsat License LLC for Authority to Launch and Operate Intelsat 40e at 91.0° W.L.*, File No. SAT-LOA-20200413-00035 (filed Apr. 13, 2020) (“*Intelsat 40e Application*”).

<sup>5</sup> Section 310(b) is not applicable to this license because Galaxy 32, like all other satellites licensed to Intelsat, will operate on a non-common carrier basis. See *Applications of The News Corp. Ltd. and The DIRECTV Group, Inc. (Transferors) and Constellation, LLC, Carlyle PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC and PEOP PAS, LLC (Transferees) for Authority to Transfer Control of PanAmSat Licensee Corp.*, Public Notice, 19 FCC Rcd 15424, 15425 (n.5) (Int'l Bur. 2004).

<sup>6</sup> 47 C.F.R. § 25.114(c).

**I. INTELSAT IS QUALIFIED TO HOLD THE AUTHORIZATION REQUESTED HEREIN**

**A. Legal Qualifications**

Intelsat is legally qualified to hold the space station authorization requested in this application. The information provided in the attached Form 312 demonstrates Intelsat's compliance with the Commission's basic legal qualifications. In addition, Intelsat already holds multiple Commission satellite licenses, and its legal qualifications are a matter of record before the Commission.<sup>7</sup>

**B. Technical Qualifications**

In the attached Form 312, Schedule S, and Engineering Statement, Intelsat demonstrates that it is technically qualified to hold the authorization requested herein. Specifically, Intelsat provides the information currently required by Section 25.114 of the Commission's rules. In addition, the Engineering Statement provides information demonstrating Intelsat's compliance with the Commission's orbital debris mitigation rules.<sup>8</sup>

**II. OPERATIONAL FREQUENCIES**

The following chart shows the frequencies that will be used by the Galaxy 32 and Intelsat 40e satellites at 91.0° W.L. and the frequencies that are currently used by the Galaxy 17 satellite at 91.0° W.L.

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<sup>7</sup> See *Constellation, LLC, Carlyle PanAmSat I, LLC, Carlyle PanAmSat II, LLC, PEP PAS, LLC, and PEO PAS, LLC, Transferors and Intelsat Holdings, Ltd., Transferee, Consolidated Application for Authority to Transfer Control of PanAmSat Licensee Corp. and PanAmSat H-2 Licensee Corp.*, Memorandum Opinion and Order, 21 FCC Rcd 7368, 7381 ¶ 23 (rel. June 19, 2006) ("The Commission previously has determined that PanAmSat and Intelsat are qualified to hold licenses.").

<sup>8</sup> 47 C.F.R. § 25.114(d)(14); see also *Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004).

	<b>Galaxy 32</b>	<b>Galaxy 17</b>	<b>Intelsat 40e</b>
3700-4200 MHz	✓	✓	
5925-6425 MHz	✓	✓	
10825-11450 MHz			✓
11450-11701MHz	✓		✓
11700-12200 MHz		✓	✓
13750-14000 MHz	✓		
14000-14500 MHz		✓	✓
17800-19400 MHz			✓
19600-20200 MHz			✓
27500-29100 MHz			✓
29250-30000 MHz			✓

All of the existing C-band frequencies licensed on Galaxy 17 are also on Galaxy 32. Additionally, Galaxy 32 contains Ku-band frequencies, 11450-11700 MHz and 13750-14000 MHz, which are not on the Galaxy 17 satellite,<sup>9</sup> but that will provide a limited replacement of Galaxy 17’s wide-beam capacity while also complementing the Intelsat 40e satellite.

Galaxy 32’s specific tracking, telemetry, and command (“TT&C”) frequencies are as follows: 4198.25 MHz, 4198.75 MHz, 4199.95 MHz, and 11700.25 MHz in the downlink; and 6422.0 MHz and 6424.5 MHz in the uplink.<sup>10</sup>

Intelsat will operate the Galaxy 32 satellite in accordance with the Commission’s *C-band Order* and Footnote NG182 of the U.S. Table of Frequency Allocations.<sup>11</sup> Following the

<sup>9</sup> Galaxy 17’s Ku-band frequencies, 11700-12000 MHz and 14000-14500 MHz, will continue to be utilized at the 91.0° W.L. orbital location by the collocated Intelsat 40e satellite. Galaxy 32 and Intelsat 40e’s only overlapping service band will be the 11450-11701 MHz downlink. *See Intelsat 40e Application*. Intelsat will self-coordinate the operations of the two satellites in that band.

<sup>10</sup> Galaxy 31 is equipped with tunable TT&C by which center frequencies are selectable via ground command in 100 kHz steps. *See Engineering Statement* at § 2.3.

<sup>11</sup> *C-band Order* at ¶ 152; 47 C.F.R. § 2.106, NG182.

completion of the FCC’s C-band transition, the Galaxy 32 satellite will provide service in the 3700-4000 MHz band only to earth stations outside the contiguous United States or on a non-protected basis to Intelsat’s two consolidated TT&C/gateway sites in Brewster, Washington and Andover, Maine.<sup>12</sup>

### **III. WAIVER REQUEST**

Intelsat requests waiver of Footnote NG52 of the U.S Table of Frequency Allocations, which restricts the use of the 11450-11700 MHz frequency band by the non-federal Fixed Satellite Service (“FSS”) to international systems only.<sup>13</sup>

Under Section 1.3 of the Commission’s rules, the Commission has authority to waive its rules “for good cause shown.”<sup>14</sup> Good cause exists if “special circumstances warrant a deviation from the general rule and such deviation will serve the public interest” better than adherence to the general rule.<sup>15</sup> In determining whether waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”<sup>16</sup> Additionally, a waiver of the Table of Frequency Allocations is generally granted “when there is

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<sup>12</sup> *Id.* Intelsat has sought reconsideration to allow its continued access to 500 MHz at these consolidated international TT&C/Gateway sites on a protected basis to ensure C-band service continuity to customers on its international C-band satellites. *See* Intelsat License LLC Petition for Reconsideration, GN Docket No. 18-122 (May 26, 2020).

<sup>13</sup> 47 C.F.R. § 2.106, fn. NG52. Footnote NG52 was formerly footnote NG104.

<sup>14</sup> 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

<sup>15</sup> *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>16</sup> *WAIT Radio*, 418 F.2d at 1159.

little potential interference into any service authorized under the Table of Frequency Allocations and when the nonconforming operator accepts any interference from authorized services.”<sup>17</sup>

Good cause exists to waive the international only requirements for the 11450-11700 MHz frequency band on Galaxy 32. The purpose of NG52 is to limit the number of the FSS earth stations with which the co-primary fixed service (“FS”) would need to coordinate.<sup>18</sup> The International Bureau has found that waiving NG52 would not undermine the purpose of the rules if the party seeking a waiver: (1) will be utilizing earth stations that are receive-only in the band and thus “not capable of causing interference into FS stations” operating in the band; and (2) agrees to “accept any level of interference from FS stations” in the band.<sup>19</sup>

With respect to the 11450-11700 MHz frequency band, grant of the requested waiver satisfies these criteria and would be consistent with precedent.<sup>20</sup> The earth stations operating in this band with Galaxy 32 will not transmit and Intelsat agrees to accept any level of interference into those earth stations from FS stations in the band. Intelsat will provide services in the 11450-11700 MHz frequency band only on a non-interference/non-protected basis. Accordingly, the

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<sup>17</sup> See *The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645, 22651 (Int’l Bur. & OET 2001); *Application of Fugro-Chance, Inc. for Blanket Authority to Construct and Operate a Private Network of Receive-Only Mobile Earth Stations*, Order and Authorization, 10 FCC Rcd 2860 (Int’l Bur. 1995) (authorizing MSS in the C-band); see also *Application of Motorola Satellite Communications, Inc. for Modification of License*, Order and Authorization, 11 FCC Rcd 13952-13956 (Int’l Bur. 1996) (authorizing service to fixed terminals in bands allocated the mobile satellite service).

<sup>18</sup> See *Satellite Services*, 26 RR 2d 1257, 1263-65. See also *EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 83° W.L. Orbital Location*, Order and Authorization, DA 04-3162, 9 (Int’l Bur., Sept. 30, 2004) (“EchoStar 83° Waiver”).

<sup>19</sup> *Id.* at ¶ 13.

<sup>20</sup> See, e.g., *DIRECTV Enterprises, LLC, Fleet Management Notice for SKY-B1 Satellite*, Stamp Grant, File No. SAT-MOD-20170221-00019, Condition 10 (reissued May 11, 2017).

earth stations operating in these bands pose no interference concerns with respect to co-frequency FS stations and therefore will not need to be coordinated with FS stations located within the United States and its territories.

Intelsat also agrees to abide by the customer notification requirements that the International Bureau has previously imposed when granting waivers of NG52.<sup>21</sup> Intelsat will inform its customers in writing, including any customers receiving end-user services from resellers accessing capacity on Galaxy 32, of the potential for interference from FS operations in the 11450-11700 MHz frequency band.

#### **IV. GRANT OF THIS APPLICATION WILL SERVE THE PUBLIC INTEREST**

The Commission recognizes a “replacement expectancy” in orbital locations in order to protect the large investments made by satellite operators. The agency has stated,

[G]iven the huge costs of building and operating satellite space stations, there should be some assurance that operators will be able to continue to serve their customers. The Commission has therefore stated that, when the orbit location remains available for a U.S. satellite with the technical characteristics of the proposed replacement satellite, it will generally authorize the replacement satellite at the same location.<sup>22</sup>

In this case, Intelsat holds a replacement expectancy for the C-band frequencies at the 91.0° W.L. orbital location because the Commission authorized Intelsat to operate Galaxy 17 at that location

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<sup>21</sup> See, e.g., *Intelsat North America LLC, Request for Waiver*, Stamp Grant with Conditions, File No. SAT-MOD-20050610- 00122, Condition 3 (Sept. 30, 2005); *EchoStar 83° Waiver* at ¶ 13.

<sup>22</sup> *Columbia Communications Corporation Authorization to Launch and Operate a Geostationary C-band Replacement Satellite in the Fixed-Satellite Service at 37.5° W.L.*, Memorandum Opinion and Order, 16 FCC Rcd 20176, ¶ 7 (2001) (citing *Assignment of Orbital Locations to Space Stations in Domestic Fixed-Satellite Service*, Memorandum Opinion and Order, 3 FCC Rcd 6972, n.31 (1988) and *GE American Communications, Inc.*, Order and Authorization, 10 FCC Rcd 13775, ¶ 6 (Int’l Bur. 1995)).

in those bands.<sup>23</sup> As demonstrated in the Technical Exhibit and Schedule S, Galaxy 32 is technically consistent with Galaxy 17.<sup>24</sup>

In addition, grant of this application will serve the public interest by ensuring continuity of service to consumers from the 91.0° W.L. orbital location. Intelsat stands ready to deploy a replacement satellite to the 91.0° W.L. orbital location before Galaxy 17 reaches the end of its useful life or is relocated, and has made concrete steps toward constructing Galaxy 32. The Commission has stated that granting replacement applications ensures that service will be provided to consumers as efficiently as possible because the current licensee will be familiar with the service requirements and, given its experience, should be able to deploy a replacement satellite in the shortest possible time.<sup>25</sup>

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<sup>23</sup> See *Galaxy 17 Authorization*.

<sup>24</sup> *Amendment of the Commission's Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, ¶ 257 (2003) (“We do not require replacement satellites to be technically *identical* to the existing satellite. We recognize that next-generation satellites will incorporate satellites with technical advancements made since the previous generation satellite was launched. We do not intend to change this policy, which facilitates state-of-the-art systems. Rather, we will continue to assess only whether operations of the replacement satellite will be consistent with our international coordination obligations pursuant to regulations promulgated by the International Telecommunication Union.”) (emphasis in original; internal citations omitted).

<sup>25</sup> See *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, 18 FCC Rcd 1962, ¶ 83 (2003) (“Repairing or even replacing a malfunctioning satellite, for all its complexity, requires less time than designing and constructing a new system. Even in the worst case where a satellite is destroyed, a licensee can ordinarily replace a lost satellite with a ground spare at the next available launch window, or procure a technically identical satellite in an expedient manner since it would have already completed the complex design process.”).

Grant of this application will further serve the public interest by enabling accelerated clearing of a portion of the C-band spectrum in accordance with the *C-Band Order*.<sup>26</sup> As described in detail in Intelsat's *Final Transition Plan*, the Galaxy 32 satellite will help create sufficient capacity to repack existing services into less spectrum and effectuate spectrum clearing.<sup>27</sup> The satellite, which is scheduled to launch in mid-2022, will enable Intelsat to more intensively use the 4000-4200 MHz band, thereby facilitating the successful transition of existing services to the upper 200 MHz of C-band spectrum ahead of the clearing deadlines without any disruption to customers.<sup>28</sup>

Finally, the Galaxy 32 satellite will allow Intelsat to complement its service offering in the region by adding additional Ku-band capacity at the location. This additional capacity will benefit consumers and thus serves the public interest.

#### **V. USE OF THE 11450-11700 MHZ AND 13750-14000 MHZ FREQUENCY BANDS**

Intelsat understands that operations in the 11450-11700 MHz and 13750-14000 MHz frequency bands are subject to certain limitations and obligations, which Intelsat accepts and will fulfill. Specifically, for operations in the 11450-11700 MHz band, Intelsat accepts the following conditions:

- Intelsat's use of the 11450-11700 MHz band (space-to-Earth) is subject to footnote US211 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy

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<sup>26</sup> *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, 85 Fed. Reg. 22804, ¶ 199 (Apr. 23, 2020).

<sup>27</sup> See Letter from Michelle V. Bryan, Executive Vice President, General Counsel and Chief Administrative Officer, Intelsat US LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 18-122 and 20-173, at 18-19 (Aug. 14, 2020).

<sup>28</sup> *Id.* at 18.

observations in the adjacent bands from harmful interference, consistent with footnote US74.

For operations in the 13750-14000 MHz frequency band, Intelsat accepts the following conditions:

- In the 13750-14000 MHz band (Earth-to-space), receiving space stations in the fixed-satellite service shall not claim protection from radiolocation transmitting stations operating in accordance with the United States Table of Frequency Allocations.
- Pursuant to footnote US337 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, any earth station in the United States and its possessions communicating with the Galaxy 32 space station in the 13750-13800 MHz band (Earth-to-space) is required to coordinate through National Telecommunications and Information Administration's ("NTIA") Interdepartment Radio Advisory Committee's ("IRAC") Frequency Assignment Subcommittee ("FAS") to minimize interference to the National Aeronautics and Space Administration ("NASA") Tracking and Data Relay Satellite System, including manned space flight.
- Operations of any earth station in the United States and its possessions communicating with the Galaxy 32 space station in the 13750-14000 MHz band (Earth-to-space) shall comply with footnote US356 of United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US356, which specifies a mandatory minimum antenna diameter of 4.5 meters and a non-mandatory minimum and maximum equivalent isotropically radiated powers ("e.i.r.p."). Operations of any earth station located outside the United States and its possessions communicating with the Galaxy 32 space station in the 13750-14000 MHz band (Earth-to-space) shall be consistent with footnote 5.502 to the International Telecommunication Union ("ITU") Radio Regulations, which allows a minimum antenna diameter of 1.2 meters for earth stations of a geostationary satellite orbit network and specifies mandatory power limits.
- Operators of earth stations accessing the Galaxy 32 space station in the 13750-14000 MHz band are encouraged to cooperate voluntarily with NASA in order to facilitate continued operation of NASA's Tropical Rainfall Measuring Mission ("TRMM") satellite.

**VI. INTERNATIONAL TELECOMMUNICATION UNION (“ITU”) COST RECOVERY**

Intelsat is aware that processing fees are currently charged by the ITU for satellite filings, and that Commission applicants are responsible for any and all fees charged by the ITU.<sup>29</sup> Intelsat unconditionally accepts this requirement and responsibility to pay any ITU cost recovery fees associated with the ITU filings that the Commission makes on behalf of Intelsat for the satellite proposed in this application, as well as any ITU filings associated with any satellite system for which Intelsat may request authorization at a later date.

**VII. MILESTONE AND BOND REQUIREMENTS**

Galaxy 32 will be subject to the milestone and bond requirements set forth in Sections 25.164 and 25.165 of the Commission’s rules because the 11450-11700 MHz and 13750-14000 MHz frequencies are included on Galaxy 32 but are not on the Galaxy 17 satellite it is replacing.<sup>30</sup>

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<sup>29</sup> See *Implementation of ITU Cost Recovery Charges for Satellite Network Filings*, Public Notice, DA 01-2435 (Oct. 19, 2001).

<sup>30</sup> 47 C.F.R. §§ 25.164 and 25.165.

**VIII. CONCLUSION**

Based on the foregoing, Intelsat respectfully requests that the Commission grant this replacement satellite application.

Respectfully submitted,

**Intelsat License LLC**

By: /s/ Susan H. Crandall

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Intelsat US LLC

January 7, 2021

## Exhibit A

### FCC Form 312, Response to Question 34: Foreign Ownership

The Commission previously approved foreign ownership in Intelsat License LLC (“Intelsat”), in the *Intelsat-Serafina Order*.<sup>1</sup> In 2012, the International Bureau authorized the transfer of control of Intelsat.<sup>2</sup> There have been no other material changes to Intelsat’s foreign ownership since the date of the *Intelsat-Serafina Order*.

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<sup>1</sup> *Intelsat Holdings, Ltd. and Serafina Holdings Limited, Consolidated Application for Consent to Transfer of Control of Holders of Title II and Title III Authorizations*, Memorandum Opinion and Order, 22 FCC Rcd 22,151 (2007).

<sup>2</sup> *In the Matter of Intelsat Global Holdings, S.A., Applications to Transfer Control of Intelsat Licenses and Authorizations from BC Partners Holdings Limited to Public Ownership*, Order, 27 FCC Rcd 5,226 (2012). The transfer of control was fully consummated on June 14, 2018. See Letter from Jennifer D. Hindin, Counsel for Intelsat, to Marlene H. Dortch, FCC, IB Docket No. 11-205 (filed June 14, 2018).

## Exhibit B

### FCC Form 312, Response to Question 40: Officers, Directors, and Ten Percent or Greater Shareholders

The officers and directors/managers of Intelsat License LLC and Intelsat License LLC, as debtor in possession, are as follows:

Officers:

David Tolley, Chairman  
José Toscano, Deputy Chairman  
Michelle Bryan, Secretary  
Mirjana Hervy, Director, Finance

Board of Managers:

David Tolley  
José Toscano  
Michelle Bryan

The business address of all Intelsat License LLC and Intelsat License LLC, as debtor in possession, officers and members of the Board of Managers is 4, rue Albert Borschette L-1246 Luxembourg.

Intelsat License LLC and Intelsat License LLC, as debtor in possession, are Delaware limited liability companies that are indirectly wholly owned by Intelsat S.A. Specifically, Intelsat License LLC and Intelsat License LLC, as debtor in possession, are wholly owned by Intelsat License Holdings LLC, also a Delaware limited liability company. Intelsat License Holdings LLC is wholly owned by Intelsat Ventures S.à r.l., a Luxembourg company, which is in turn wholly owned by Intelsat Alliance LP, a Delaware limited partnership. Intelsat Alliance LP is managed by one general partner and two limited partners—Intelsat Genesis GP LLC, Intelsat Genesis Inc., and Intelsat Jackson Holdings S.A., respectively. Intelsat Genesis GP LLC is a Delaware limited liability company, which is a wholly owned by Intelsat Genesis Inc., a Delaware corporation.

Intelsat Genesis Inc. is a wholly owned subsidiary of Intelsat Jackson Holdings S.A., a Luxembourg company. Intelsat Jackson Holdings S.A. is wholly owned by Intelsat Connect Finance S.A., a Luxembourg company, which in turn is wholly owned by Intelsat Envision Holdings LLC, a Delaware limited liability company. Intelsat Envision Holdings LLC is wholly owned by Intelsat (Luxembourg) S.A., a Luxembourg company. Intelsat (Luxembourg) S.A. is wholly owned by Intelsat Investments S.A., a Luxemburg company, which in turn is wholly owned by Intelsat Holdings S.A., a Luxembourg company. Intelsat Holdings S.A. is wholly owned by Intelsat Investment Holdings S.à r.l., a Luxembourg company. Intelsat Investment Holdings S.à r.l. is wholly owned by Intelsat S.A., a Luxembourg company. Each of these entities may be contacted at the following address: 4, rue Albert Borschette, L-1246 Luxembourg.

Intelsat S.A. is a publicly traded company. To the best of Intelsat’s knowledge, and with the exception of BC Partners Holdings Limited (“BCP”), described below, no person or entity holds a ten percent or greater ownership interest in Intelsat S.A. as of April 28, 2020.

Name: BCP  
Address: Heritage Hall, Le Marchant Street, St Peter Port,  
Guernsey, Channel Islands  
Citizenship: Guernsey  
Indirect Interest: Approximately 34%<sup>1</sup>

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<sup>1</sup> The exact indirect interest held by BCP is subject to fluctuation as Intelsat S.A.’s stock is publicly traded.